



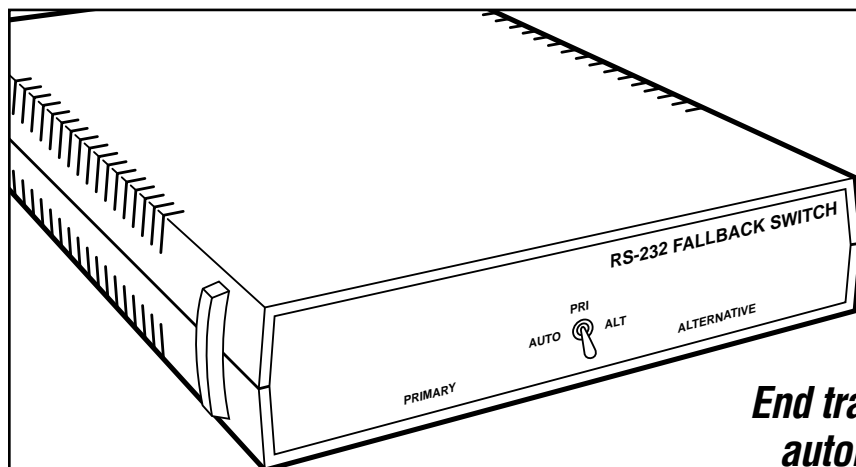
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Black Box Corporation.

# BLACK BOX<sup>®</sup>

## NETWORK SERVICES

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## RS-232 FALLBACK SWITCH



***End transmission downtime with automatic modem switching.***

### Key Features

- ▶ ***Make your system more reliable by switching to a backup modem when your primary link fails.***
- ▶ ***Minimize downtime and inconvenience.***
- ▶ ***Flexible—can perform either manual or automatic changeover switching.***
- ▶ ***Front-panel LEDs show you system status at a glance.***
- ▶ ***Supports rates as high as your RS-232 line can carry.***
- ▶ ***230-volt version available.***

**B**reakdowns in your data communication are always inconvenient—and often expensive. Our RS-232 Fallback Switch gives you another way to get your vital data through with the least amount of downtime.

By diverting the traffic from a primary modem to a backup modem when the preferred communications pathway fails, the RS-232 Fallback Switch keeps your data flowing. And because the switchover is fast, efficient, and highly reliable, you're given that extra bit of assurance that your essential information will be there when it needs to be.

Ideal for switching your data from a dedicated leased-line modem to a dialup modem when the leased line goes down, the device switches all 12 leads that are normally required for sync or async operation. What's more, it can support data rates as high as your RS-232 cable can carry.

### Automatic or manual modes

The RS-232 Fallback Switch also gives you several switching options, providing flexibility as your system requirements change. You can operate the switch manually (physically switching between modems as needed), but it also has two automatic modes of operation: normal fallback (FB) mode and autoswitching (AS) mode, which you can customize by setting jumpers inside the unit.

Preset to operate in FB mode, the switch normally communicates with the modem attached to its PRIMARY connector. But, during automatic operation, the RS-232 Fallback Switch also checks constantly for the presence of a "trigger signal" on its ALTERNATE connector. And if one is sensed—whether it's DSR (Data Set Ready, Pin 6), CTS (Clear To Send), or Carrier Detect

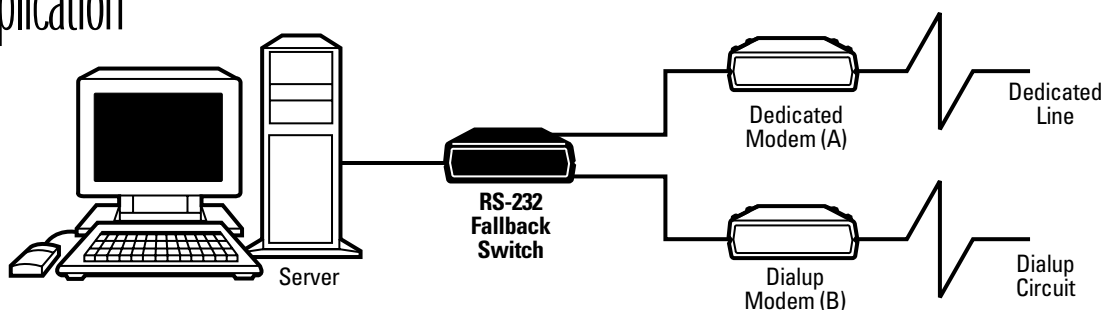
(CD), depending on which of these you select—it'll switch to the modem attached to that connector. (This switch occurs even if the primary modem is still operating.) When the switch no longer senses the trigger signal, it "falls back" to the primary modem.

In contrast, if you set the switch's jumper to AS mode, the RS-232 Fallback Switch doesn't give either the primary or alternate channel higher priority than the other; it switches to whichever modem raises the trigger signal first, and won't switch back to the other modem until the currently connected one drops the trigger signal.

### Simple to set up and operate

Once the switch is configured, simply install it in a cool, dry place close to the devices you want to attach to it and connect the necessary cables. This simple

# Typical Application



procedure includes:

- Running cable from your primary modem (or other device) to the rear-panel PRIMARY connector.
- Running cable from your alternate modem (or other device) to the rear-panel ALTERNATE connector.
- Running cable from the master or common device (server, PC, host, printer, etc.) to the rear-panel MASTER connector.

- Attaching the switch's power cord.

The RS-232 Fallback Switch begins operating when it receives power. The type of switching, whether it's automatic or manual, is determined by the position of the front-panel toggle switch. LEDs light up to show whether it's switched (automatically or manually) to the primary device, or if it's switched to the alternate device.

**NOTE:** For all DCE connections to the the PRIMARY and ALTERNATE connectors, use straight-through pinned RS-232 cable. For DTE connections to the same ports, you'll need specially cross-pinned cable (for details, call Black Box Tech Support). For DTE connections to the MASTER connector, use straight-through-pinned RS-232 cable. To attach a DCE device to the MASTER port, use specially cross-pinned cable (for details, call Black Box Tech Support).

## Package Includes

- The RS-232 Fallback Switch
- Detachable power cord
- Users' manual

## Specifications

**Compliance:** FCC Part 15, Class A; DOC Class/MDC classe A; CE

**Compatibility:** Compatible with dialup modems using ITU-TSS V.34, V.32 bis, V.32, and most other major modem standards

**Data Format:** Transparent to data format

**Data Rate:** Up to maximum rate supported by cabling

**Distance (Maximum):** 50 ft. (15.2 m) to any attached RS-232 device using standard cables

**Flow Control:** Transparent to flow control, but monitors/ switches on DSR, CTS, or RLSD (DCD); also passes or forces DTR

**Leads/Signals Supported:** 2 through 6, 8, 15, 17, 20 through 22, and 24 (TD, RD, RTS, CTS, DSR, RLSD [CD], TSETC [TC], RSETC [RC], DTR, RI, and TSETT [EXTC] respectively); 1 and 7 (PGND and SGND respectively) are tied common

**User Controls:** (1) front-mounted toggle switch for selecting automatic/ primary/alternate; (4) internal configuration jumpers

**MTBF:** 180,000 hours

**Interfaces:** EIA RS-232C, modular telco

**Connectors:** (3) rear-mounted DB25 F: Common (master), primary, and alternate ports

**Indicators:** (2) front-mounted LEDs showing active channel (ALT/PRI)

**Temperature Tolerance:** Operating: 32 to 122°F (0 to 50°C); Storage: -4 to +158°F (-20 to +70°C)

**Humidity Tolerance:** Up to 95% noncondensing

**Enclosure:** High-impact ABS plastic

**Power:** SW901A: 115 VAC, 60 Hz, through detachable power cord (included) and internal power supply;  
SW901AE 230 VAC, 50 Hz, through detachable power cord (not included) and internal power supply;  
Consumption (both models): 8 watts

**Size:** 2.5"H x 8"W X 12"D (6.4 x 20.3 x 30.5 cm)

**Weight:** 2.7 lb. (1.2 kg)

## Ordering Information

ITEM

CODE

RS-232 Fallback Switch

115-VAC.....SW901A

230-VAC.....SW901AE

You may also need...

RS-232 Cable, 25 Conductors (12½ Pairs)—Pins 1–25

(Specify gender and length).....ECM25C